SURGICAL HAND ANTISEPSIS

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BACKGROUND/EVIDENCE

- A systematic review by de Jesus Gonçalves, Graziano, and Kawagoe (2012) found that 90.5% of the studies reported that the alcohol preparations generated higher or equal microbial reductions compared to traditional scrub products. 17 studies reported higher microbial reductions through use of alcohol hand rubs versus traditional scrub products.
- 4 recent studies demonstrated that alcohol-based hand rubs are significantly more effective at reducing microbial counts as traditional hand scrub practices. (reference articles: 2, 8, 9, 10)
- 6 research studies demonstrated that alcohol-based hand rubs are equally as effective at reducing microbial counts as traditional scrub practices. (reference articles: 1, 3, 4, 5, 7, 11)

LVHN’s current policy details the procedures for both methods of surgical hand antisepsis – the traditional scrub and the rub with Avagard – but the policy doesn’t dictate which method staff must use. The decision is left to the scrubbed personnel.

By determining the best current evidence based practice for surgical hand antisepsis and educating OR staff members, there is a potential for: improved staff well-being and patient outcomes, a standardized policy on surgical hand antisepsis, and reduced OR operational costs if fewer varieties of hand scrub can be purchased and consumed.

PICO QUESTION

Among surgical nurses and technicians, does providing education on the best practice for surgical hand antisepsis lead to a change in practice within the clinical setting?

P: Surgical nurses and surgical technicians
I: Educational intervention on best surgical hand antisepsis practice
C: Compared to no education (personal practice choice in accordance with hospital policy)
O: Is there improved compliance with the best evidence based practice?

IMPLEMENTATION

- Conduct research on the best methods of surgical hand antisepsis
- Create and disseminate a pre-education survey to OR surgical nurses and surgical technicians (LVH-M and LVH-CC) on their hand scrubbing beliefs and practices
- Creation and disseminate a TLC education module presenting best evidence for surgical hand antisepsis
- Create and disseminate post-education survey to OR nurses and surgical technicians to evaluate if changes were made to their hand scrubbing beliefs and practices
- Present findings to management with recommendations based on findings

RESULTS

Surgical Scrub Method Performed by OR Staff LVH-M and LVH-CC

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<tr>
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<th>Pre-Education</th>
<th>Post-Education</th>
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<tbody>
<tr>
<td>Mix of Avagard &amp; Scrub</td>
<td>35%</td>
<td>15%</td>
</tr>
<tr>
<td>Avagard Only</td>
<td>5%</td>
<td>12%</td>
</tr>
<tr>
<td>Traditional Scrub Only</td>
<td>30%</td>
<td>38%</td>
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The use of Avagard increased from 30% to 37%

17% indicated a change in scrubbing practice following education, but 80% of those changed to a mix of Avagard and traditional scrubbing

Percentage of Staff Who Believe Avagard is the More Effective Scrub

<table>
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<th>Post-education</th>
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<td>12%</td>
<td>35%</td>
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DISCUSSION

- TLC education indicating that Avagard was the more effective surgical scrub did not affect significant change in practice.
  - 17% indicated a change in scrubbing practice following education, but 80% of those reported using a combination of Avagard and traditional scrub.
  - 63% of staff still use the traditional scrub or a combination of the traditional scrub and Avagard.
- The percentage of staff who indicated that they believe Avagard is the superior scrub method rose from 12% to 36% post education while the percentage of staff using only Avagard increased from 30% to 37%
- Survey responses indicate that several staff performing a mix of Avagard and traditional scrub believe that they are already in line with the evidence presented, and did not change their practice.
- Response rate for the post-education survey was poor. An online version and/or email reminders may have helped with response rate. Further, additional education and reinforcement (i.e. handouts or fliers placed at scrub sinks) may have proven more effective than TLC alone.


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